Claims 1-8, 10-20 and 22-24 stand rejected under 35 U.S.C. §103 as allegedly being obvious over EP '721 (Kawade) in view of Kato '708 and Shinichi (JP '748). In addition, Claims 9 and 21 stand rejected as allegedly being obvious over those citations and further in view of Wallace '563. These rejections are respectfully traversed.

Claim 1 of Applicants' invention is directed to a method of manufacturing an airtight vessel. The method includes the steps of activating a getter disposed in the vessel, and after such activation, sealing the vessel by fusing a part of an evacuation tube for evacuating the inside of the vessel while heating the vessel.

Claim 13 is directed to a method for manufacturing an image-forming apparatus using an airtight vessel containing a plurality of electron emission elements and image-forming members. The method includes the steps of activating a getter disposed in a vessel and, after the activation, sealing the vessel by fusing a part of an evacuation tube for evacuating the inside of the vessel while heating the vessel.

In accordance with Applicants' claimed invention, an airtight vessel providing superior performance and a long life can be provided.

As discussed in the previous Amendment of February 8, 2001, Kawade relates to an electron-emitting device that includes, as part of a display panel, an envelope 88 (see Figure 8). In contrast to Applicants' claimed invention, Kawade teaches activating the getter only after sealing the envelope (see page 20, lines 9-12).

The secondary citations to Kato and Shinichi were cited to compensate for the deficiencies in Kawade. On page 2 of the Office Action, it is asserted that both Kato and Shinichi teach that "it is desirable to activate a getter prior to sealing." This assertion is respectfully traversed.

Kato relates to a method of making an ultra-high vacuum field emission display that includes, as part of the display, an airtight package. While Kato discloses using two getters, Kato is not understood to teach or suggest initiating any getter process before sealing. Specifically, Kato discloses:

> The activation temperature of first non-evaporable getter material 120 is provided during the sealing and evacuation step during the fabrication of UHV FED 100 (see column 3, line 66-column 4, line 2).

Shinichi is directed to an image display device that includes a container as part of the display. Shinichi also discloses the use of two getter materials: the first stored in the container and the second stored in either a second container or an exhaust pipe attached to the first container. Shinichi discloses:

> After the exhaust pipe 100 is heat melted and completely sealed, a getter material stored in a container 114 is heat evaporated and vacuum evaporated on the backing plate 101, etc., so as to hold vacuum in the inside of the pipe. In the above imaging display device, the second getter material is arranged in the exhaust pipe 100. This getter material is stored in a container 115 or vacuum evaporated on the inside wall of the exhaust pipe so as to be arranged (see Abstract).

Accordingly, it is respectfully submitted that neither Kato nor Shinichi can be used for a teaching of activating a getter prior to the sealing process.

Secondly, even assuming, arguendo, that a secondary citation could be used for a teaching of sealing the vessel after activation of the getter, it is respectfully submitted that it would not have been obvious to modify the electron-emitting device in Kawade in the manner proposed in the Office Action because such a modification goes against the teachings of Kawade. As discussed above, in Kawade the getter is activated after sealing the envelope, and there is no incentive or motivation to modify Kawade to activate the getter before sealing.

Accordingly, reconsideration and withdrawal of the rejection of Claims 1-8, 10-20 and 22-24 under 35 U.S.C. §103 is deemed to be in order and such action is respectfully requested.

The tertiary citation to Wallace relates to a method of making a field emission device and was cited for its teaching of providing means for reactivating a non-evaporable getter.

Wallace fails, however, to compensate for the deficiencies in the citations as discussed above. Therefore, the proposed combination of art, even if proper, still fails to teach or suggest Applicants' claimed invention. Thus, reconsideration and withdrawal of the rejection of Claims 9 and 21 under 35 U.S.C. §103 is also respectfully requested.

Accordingly, it is submitted that Applicants' invention as set forth in independent Claims 1 and 13 is patentable over the cited art. In addition, dependent Claims 2-12 and 14-24 set forth additional features of Applicants' invention. Independent consideration of the dependent claims is respectfully requested.

PETITION UNDER 37 C.F.R. §1.97(d), CERTIFICATION UNDER §1.97(e)
AND THIRD SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Applicants having received an Office Action entering a final rejection, mailed April 10, 2001, respectfully petition under 37 C.F.R. §1.97(d) for consideration of the following Information Disclosure Statement.

Accompanying this paper is a check for one hundred thirty dollars ($130.00) for payment of the petition fee under 37 C.F.R. §1.17(i)(1) and §1.97(d)(2)(iii). The Commissioner is authorized to charge any deficiency in or credit any overpayment of this fee to Deposit Account No. 06-1205.

Applicants certify under 37 C.F.R. §1.97(e)(1) that each item of information contained in the following information disclosure statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement. Specifically, these documents were cited in a Korean Official Letter dated April 20, 2001, in a corresponding Korean patent application. An English Translation of the Official Letter is enclosed.

To comply with the duty of disclosure under 37 C.F.R. §1.56 and in accordance with the practice under 37 C.F.R. §1.98 and §1.98, the Examiner's attention is drawn to the documents listed on the enclosed PTO-1449 form. Copies of the listed documents are also enclosed.

The enclosed Official Letter from the Korean Patent Office provides a statement of relevance of each of the enclosed foreign references. For the Examiner's additional information, Korean Patent Laid-Open No. 10-220357 corresponds to U.S. Patent No. 5,952,775, which is also enclosed.

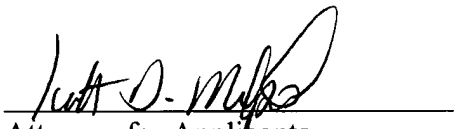
The Examiner is requested to initial and return the enclosed PTO-1449 form to show consideration of the enclosed documents.

CONCLUSION

In view of the foregoing, reconsideration and allowance of this application is deemed to be in order and such action is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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The Patent Office
Notice of Reasons of Rejection

Applicant: Name: Canon Kabushiki Kaisha (Applicant's Code 519980959073)
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Application No.: 10-1999-0017541

Title of the Invention:
Method of Manufacturing Airtight Vessel and
Image-Forming Apparatus Using Airtight Vessel

This is to inform that the subject application was examined and found to contain the following reasons of rejection. Any argument under Article 63 of the Patent Law or any amendment under Article 47, Paragraph 2, Item 3 of the same Law are to be submitted on or before June 20, 2001. (The above-mentioned term for the response is extendable on one-month basis. The Patent Office will not send any notice of approval of extension.)

Reasons

The inventions set forth in Claims 1 to 24 of the subject application could easily be achieved by those skilled in the art from the undermentioned publications prior to the filing of the subject application and, therefore, are not patentable in view of Article 29, Paragraph 2 of the Patent Law.

Remarks

The invention is directed to an electron-emission device and an image forming apparatus, which is characterized in that removal of gases in an airtight vessel is accelerated by using a getter disposed in the airtight vessel and by sealing an evacuation tube which evacuates the interior of the airtight vessel. Such invention could obviously be achieved by those skilled in the art to which the invention pertains, by combining the disclosures of the following documents: Korean Patent Laid-Open No. 93-11091 (1993.6.23) which discloses a fourth step in which vacuum sealing is effected by using an evacuation tube and a getter; Korean Patent Laid-Open No. 1999-027714 (1999.04.15) which discloses a method of secondary evacuation of an electric-field emission display element using a getter chamber, wherein an evacuation tube is sealed after a primary evacuation, followed by a secondary evacuation to achieve a high degree of vacuum inside a panel of the electric-field emission display element; and Korean Patent Laid-Open

No. 96-2432 (1996.01.26) which discloses an image forming apparatus and a method of producing the same, the apparatus having a rear panel on which electron-emission elements are formed, a front panel, a spacer, a supporting frame, and an evacuation tube for evacuating the interior.

[List of Attached Documents]
Document 1: Copy of Korean Patent Laid-Open No. 93-11091(1993.06.23) 1
Document 2: Copy of Korean Patent Laid-Open No. 1999-027714(1999.04.15)1
Document 3: Copy of Korean patent Laid-Open No. 10-0220357(1999.06.21) 1

April 20, 2001
The Patent Office Examination Dept. No. 4
Examiner: Kann Byon Sopu